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of
Natural
Resources
Conservation
Service

Montana Basin Outlook Report March 1, 1997



Basin Outlook Reports

and Federal - State - Private Cooperative Snow Surveys

*For more water supply and resource management information, contact:
See Attached List*

How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

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B A S I N S U M M A R Y O F
S N O W C O U R S E D A T A

MARCH 1997

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90

MONTANA						
ABUNDANCE LAKE	8800	2/28/97	79	24.5	23.2	16.8
ALBRO LAKE PILLOW	8300	3/01/97	---	23.5	--	--
AMBROSE	6480	2/27/97	60	17.9	10.8	11.0
ASHLEY LAKE	4000	2/25/97	34	9.3	5.6	6.1
ARCH FALLS	7350	2/26/97	55	16.0	9.7	9.8
ASHLEY DIVIDE	4820	2/25/97	38	11.7	5.6	6.4
BADGER PASS PILLOW	6900	3/01/97	---	37.1	34.4	30.8
BANFIELD MTN PILLOW	5600	3/01/97	---	22.7	18.7	17.4
BAREE CREEK	5500	2/24/97	120	44.7	--	39.4
BAREE MIDWAY	4600	2/24/97	53	18.2	21.4	30.5
BARKER LAKES PILLOW	8250	3/01/97	---	15.9	12.6	12.2
BASIN CREEK PILLOW	7180	3/01/97	---	8.4	6.3	6.5
BASSOO PEAK	5150	2/26/97	45	14.6	8.2	10.0
BEAGLE SPCS PILLOW	8850	3/01/97	---	10.7	8.7	6.8
BEAR BASIN	8150	2/26/97	75	25.4	20.2	17.6
BEAVER CREEK PILLOW	7850	3/01/97	---	26.8	16.8	14.8
BIG SNOWY	7150	2/26/97	57	16.6	--	17.3
BISSON CREEK PILLOW	4920	3/01/97	---	17.3	7.8	9.7
BLACK BEAR PILLOW	7950	3/01/97	---	51.2	40.3	31.7
BLACK MOUNTAIN	7750	2/24/97	62	17.9	11.0	12.2
BLACK PINE PILLOW	7100	3/01/97	---	14.5	13.9	10.5
BLACKTAIL	5650	2/25/97	60	19.6	11.9	12.6
BLOODY DICK PILLOW	7550	3/01/97	---	17.1	15.3	10.7
BLUE LAKE	5900	2/24/97	81	26.0	20.6	22.0
BOTS SOTS	7750	2/28/97	44	10.6	9.6	6.3
BOULDER MTN PILLOW	7950	3/01/97	---	22.9	19.1	17.0
BOX CANYON PILLOW	6700	3/01/97	---	14.8	11.6	8.8
BOXELDER CREEK	5100	2/28/97	32	6.1	4.1	7.4
BRACKETT CR PILLOW	7320	3/01/97	---	28.4	21.7	16.7
BRANHAM LAKES	8850	2/24/97	98	37.1	33.2	24.5
BRIDGER BOWL	7250	2/24/97	100	35.0	21.8	21.5
BRUSH CREEK TIMBER	5000	2/24/97	36	9.8	5.6	8.6
BULL MOUNTAIN	6600	2/26/97	30	8.2	5.5	5.2
CABIN CREEK	5200	2/27/97	37	8.2	5.8	6.0
CALL ROAD	8050	3/04/97	50	12.9	10.5	9.4
CALVERT CR PILLOW	6430	3/01/97	---	14.7	11.0	8.0
CAMP SENIA	7890	2/28/97	33	7.6	7.9	4.6
CARROT BASIN PILLOW	9000	3/01/97	---	36.4	28.2	22.6
CARTER CREEK	7400	3/04/97	33	6.6	4.0	3.9
CHESSMAN RESERVOIR	6200	2/24/97	16	3.8	.5	3.4
CHICKEN CREEK	4060	2/27/97	74	23.4	15.9	14.3
CLOVER MDW PILLOW	8800	3/01/97	---	18.9	15.7	14.9
COLE CREEK PILLOW	7850	3/01/97	---	14.3	15.9	12.9
COMBINATION PILLOW	5600	3/01/97	---	7.4	3.6	5.1
COPPER BOTTOM PILLOW	5200	3/01/97	---	16.9	11.0	10.0
COPPER CAMP PILLOW	6950	3/01/97	---	36.8	37.6	29.8
COPPER MOUNTAIN	7700	2/28/97	50	14.8	11.2	9.1
COTTONWOOD CREEK	6400	2/24/97	38	9.9	4.0	6.5
COYOTE HILL	4200	2/28/97	54	16.2	8.8	9.5
CREVICE MOUNTAIN	8400	2/23/97	50	14.5	10.4	9.0
CRYSTAL LAKE PILLOW	6050	3/01/97	---	11.1	5.7	10.7
DAD CREEK LAKE	8400	2/28/97	56	14.3	14.8	11.0
DAISY PEAK	7600	2/27/97	43	10.8	9.0	9.0
DAISY PEAK	7600	2/27/97	43	10.8	9.0	9.0

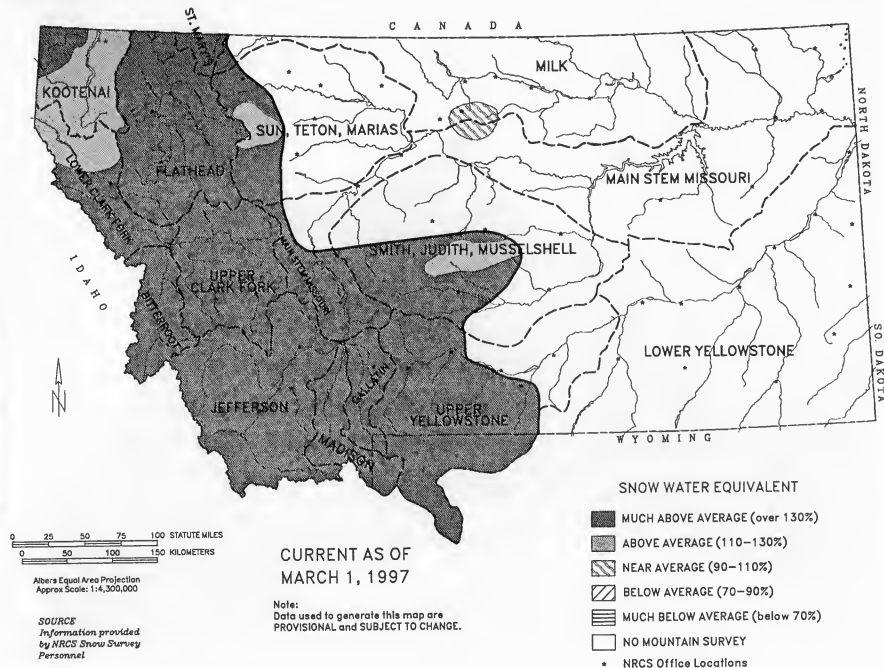
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
DALY CREEK PILLOW	5780	3/01/97	---	16.9	9.9	10.0
DARKHORSE LK. PILLOW	8700	3/01/97	---	38.4	33.3	27.9
DAVIS CREEK	5400	2/28/97	91	32.6	24.4	21.1
DEADMAN CR PILLOW	6450	3/01/97	---	13.7	8.3	8.6
DESERT MOUNTAIN	5600	3/01/97	---	20.3E	11.9	13.2
DISCOVERY BASIN	7050	2/27/97	56	16.4	10.4	8.6
DIVIDE PILLOW	7800	3/01/97	---	12.3	8.8	8.9
DIX HILL	6400	3/02/97	52	15.1	9.5	10.7
DUPUYER CREEK PILLOW	5750	3/01/97	---	11.5	10.4	10.6
EAST FORK R.S.	5400	2/27/97	37	8.9	6.7	6.0
EL DORADO MINE	7800	2/26/97	72	21.9	17.2	16.7
ELK HORN SPRINGS	7800	2/28/97	45	12.3	11.2	7.8
ELK PEAK	8000	2/26/97	60	20.2	14.0	13.4
EMERY CREEK PILLOW	4350	3/01/97	---	21.2	9.8	14.0
FATTY CREEK	5500	2/28/97	113	37.2	18.6	20.2
FISH CREEK	8000	2/28/97	44	12.3	7.6	7.8
FISHER CREEK PILLOW	9100	3/01/97	---	49.2	40.3	30.3
FIVE-BULL	5700	2/24/97	31	8.3	3.9	5.8
FLATTOP MTN PILLOW	6300	3/01/97	---	53.9	49.1	40.9
FLEECER RIDGE	7500	2/26/97	48	15.9	13.4	9.0
FOOLHEN	8280	2/28/97	66	20.3	17.2	13.8
FOUR MILE	6900	2/25/97	38	10.2	6.4	7.1
FOURTH OF JULY	3450	3/01/97	---	15.0E	7.7	8.6
FREIGHT CREEK	6000	2/24/97	52	14.9	13.9	12.9
FROHNER MDWS PILLOW	6480	3/01/97	---	8.7	7.3	7.2
GARVER CREEK PILLOW	4250	3/01/97	---	16.1	10.0	9.2
GARVER CREEK	4250	2/28/97	59	17.0	10.6	9.9
GOAT MOUNTAIN	7000	2/28/97	48	13.0	9.4	9.2
GRASSHOPPER	7000	2/26/97	33	9.2	4.4	4.9
GRAVE CRK PILLOW	4300	3/01/97	---	20.1	14.5	15.2
GRIFFIN CR DIVIDE	5150	2/26/97	49	15.0	8.9	10.0
HAND CREEK PILLOW	5030	3/01/97	---	17.7	10.9	10.9
HAWKINS LAKE PILLOW	6450	3/01/97	---	28.4	25.0	24.2
HEBGEN DAM	6550	2/26/97	52	16.2	9.9	10.8
HELL ROARING DIVIDE	5770	2/27/97	105	34.9	29.2	26.4
HERRIG JUNCTION	4850	2/27/97	95	34.1	27.8	21.7
HOLBROOK	4530	3/01/97	---	15.7E	8.3	8.8
HOODOO BASIN PILLOW	6050	3/01/97	---	56.6	47.3	39.7
HOODOO CREEK	5900	3/01/97	---	51.6E	46.4	39.2
INDEPENDENCE	7850	2/28/97	70	23.6	20.0	15.6
INTERGAARD	6450	2/27/97	43	11.6	5.6	6.8
JOHNSON PARK	6450	2/27/97	33	8.0	4.6	6.4
KISHENEHN	3890	2/25/97	45	12.6	8.0	7.5
KIWANIS CAMP	3720	2/28/97	7	1.3	.3	1.8
KRAFT CREEK PILLOW	4750	3/01/97	---	25.1	10.6	14.5
LAKE CREEK	6100	3/04/97	41	9.9	8.8	7.4
LAKEVIEW CANYON	6930	2/27/97	43	11.4	6.8	9.4
LAKEVIEW RDG. PILLOW	7400	3/01/97	---	12.7	9.3	10.3
LEMHI RIDGE PILLOW	8100	3/01/97	---	12.4	10.2	8.9
LICK CREEK PILLOW	6860	3/01/97	---	13.7	7.9	10.7
LICK CREEK	6860	2/26/97	44	12.1	--	8.3
LITTLE PARK	7400	2/26/97	65	22.2	14.4	13.4
LOGAN CREEK	4300	2/24/97	36	10.5	6.4	6.7
LONE MOUNTAIN PILLOW	8880	3/01/97	---	24.2	20.3	15.5
LOWER TWIN PILLOW	7900	3/01/97	---	22.0	19.6	15.0
LUBRECHT PILLOW	4680	3/01/97	---	8.9	5.1	5.8
LUBRECHT FOREST NO 3	5450	2/27/97	36	9.6	5.8	6.3
LUBRECHT FOREST NO 4	4650	2/27/97	23	6.6	2.2	3.1
LUBRECHT FOREST NO 6	4040	2/27/97	27	8.1	3.8	3.7
LUBRECHT HYDROPLOT	4200	2/28/97	37	9.5	6.2	6.4

MADISON PLT PILLOW	7750	3/01/97	---	36.4	23.6	20.6
MANY GLACIER PILLOW	4900	3/01/97	---	20.8	11.7	14.8
MARIAS PASS	5250	2/27/97	73	25.4	15.0	14.9
MAYNARD CREEK	6210	2/24/97	69	22.3	9.3	12.4
MIDDLE MILL CREEK	7850	2/24/97	59	20.3	14.9	13.5
MILL CREEK	7500	2/25/97	56	18.2	12.1	10.2
MINERAL CREEK	4000	2/26/97	80	28.0	16.8	15.9
MONUMENT PK PILLOW	8850	3/01/97	---	28.8	22.6	17.8
MOSS PEAK PILLOW	6780	3/01/97	---	53.2	37.6	31.4
MT LOCKHART PILLOW	6400	3/01/97	---	23.1	21.7	18.0
MULE CREEK PILLOW	8300	3/01/97	---	19.8	19.6	13.2
NEVADA CREEK PILLOW	6480	3/01/97	---	18.1	14.5	11.2
NEVADA RIDGE PILLOW	7020	3/01/97	---	16.9	17.6	13.7
NEW WORLD	6900	2/25/97	59	19.2	11.2	12.0
NEWTON MOUNTAIN	5600	2/27/97	106	43.3	31.0	29.0
NEZ PERCE CMP PILLOW	5650	3/01/97	---	19.1	15.7	13.0
NEZ PERCE CREEK	6600	2/28/97	40	11.2	6.6	5.9
NEZ PERCE PASS	6570	2/28/97	67	21.5	15.7	14.6
NOISY BASIN PILLOW	6040	3/01/97	---	57.6	37.4	33.7
N.F. ELK CR PILLOW	6250	3/01/97	---	15.5	12.2	10.8
NF JOCKO PILLOW	6330	3/01/97	---	55.4	43.3	39.8
N.E. ENTRANCE PILLOW	7350	3/01/97	---	11.3	10.1	8.1
NOTCH	8500	3/01/97	59	15.9	13.8	12.4
OPHIR PARK	7150	3/02/97	68	19.5	15.6	14.7
PETERSON MEADOWS	7200	2/27/97	51	13.0	7.8	8.4
PICKFOOT CRK PILLOW	6650	3/01/97	---	13.6	10.6	9.1
PIKE CREEK PILLOW	5930	3/01/97	---	33.1	26.7	22.8
PIPESTONE PASS	7200	2/27/97	28	7.0	4.1	4.1
PLACER BASIN PILLOW	8830	3/01/97	---	21.6	18.0	15.3
PORCUPINE PILLOW	6500	3/01/97	---	11.4	5.1	6.1
POTOMAGETON PARK	7150	2/25/97	60	20.3	12.6	12.6
RED TOP	5260	2/27/97	92	37.4	28.0	24.0
REVAIS CREEK	4800	2/26/97	19	6.0	.7	3.1
ROCK CREEK	5600	2/26/97	36	8.8	3.6	8.7
ROCK CREEK MEADOW	8160	2/25/97	82	29.9	20.6	17.4
ROCKER PEAK PILLOW	8000	3/01/97	---	15.4	13.8	12.6
ROCKY BOY PILLOW	4700	3/01/97	---	4.8	.1	4.6
ROCKY BOY	4700	2/28/97	16	3.8	.1	4.0
SACAJAWEA	6550	2/25/97	64	21.8	11.4	11.8
SADDLE MTN PILLOW	7900	3/01/97	---	33.0	32.7	21.9
SHORT CREEK PILLOW	7000	3/01/97	---	6.0	4.5	4.9
SHOWER FALLS PILLOW	8100	3/01/97	---	27.4	20.0	18.8
SILVER RUN PILLOW	6630	3/01/97	---	5.8	5.3	5.2
SKALKAHO PILLOW	7260	3/01/97	---	32.4	28.9	20.8
SLIDE ROCK MOUNTAIN	7100	3/01/97	63	18.4	12.5	13.3
SMUGGLER MINE	6960	2/24/97	41	11.9	7.3	8.6
S.F. SHIELDS PILLOW	8100	3/01/97	---	25.5	15.8	14.2
SPOTTED BEAR MTN.	7000	3/01/97	---	19.4E	13.4	13.3
SPUR PARK PILLOW	8100	3/01/97	---	23.6	20.2	18.6
SQUAW PEAK PILLOW	6150	3/01/97	---	23.5	14.5	13.0
STAHL PEAK PILLOW	6030	3/01/97	---	38.7	43.5	30.2
STAHL PEAK	6030	2/27/97	118	43.8	--	33.9
STEMPLE PASS	6600	2/25/97	44	12.3	7.6	8.5
STORM LAKE	7780	2/27/97	61	15.9	13.0	10.8
STRYKER BASIN	6180	2/27/97	107	38.8	34.0	28.5
STUART MOUNTAIN	7400	2/28/97	115	43.5	37.6	27.4
STUART MOUNTAIN PILL	7400	3/01/97	---	39.1	33.5	25.8
SUCKER CREEK	3960	2/28/97	4	.3	.5	.4
TAYLOR ROAD	4080	2/28/97	14	3.1	.4	3.1
TEN MILE LOWER	6600	2/24/97	35	9.1	4.2	6.3

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90

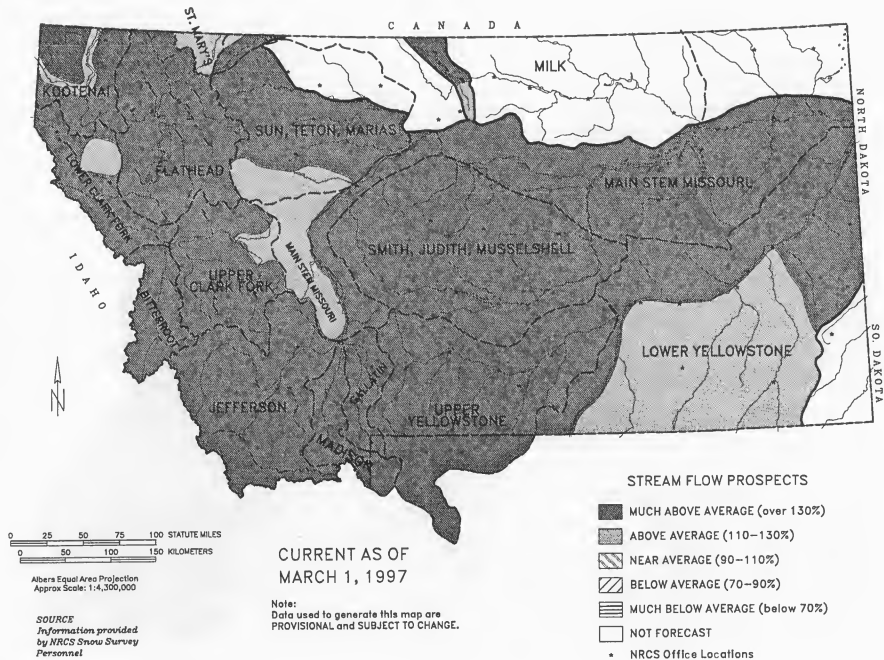
TEN MILE MIDDLE	6800	2/24/97	46	12.9	9.4	9.5
TEPEE CREEK PILLOW	8000	3/01/97	---	16.4	11.1	10.9
TIMBERLINE CREEK	8850	3/01/97	---	18.6E	14.7	11.5
TIZER BASIN PILLOW	6840	3/01/97	---	9.6	9.4	9.6
TRAIL CREEK	7090	2/28/97	33	8.0	7.3	6.9
TRINKUS LAKE	6100	2/24/97	150	55.7	36.4	36.7
TRUMAN CREEK	4060	2/25/97	31	9.0	3.9	5.0
TV MOUNTAIN	6800	2/28/97	73	24.8	17.2	15.6
TWELVEMILE PILLOW	5600	3/01/97	---	24.9	13.1	16.4
TWENTY-ONE MILE	7150	2/26/97	67	24.0	15.2	14.9
TWIN CREEKS	3580	3/01/97	---	18.5E	9.3	10.7
TWIN LAKES PILLOW	6400	3/01/97	---	53.6	42.3	34.3
UPPER HOLLAND LAKE	6200	3/01/97	---	48.6E	30.5	30.4
WALDRON PILLOW	5600	3/01/97	---	14.0	10.5	10.0
WARM SPRINGS PILLOW	7800	3/01/97	---	25.7	26.4	18.2
WEASEL DIVIDE	5450	2/27/97	102	35.8	40.4	29.5
WEST YELLOWSTONE	6700	2/26/97	52	14.0	9.3	10.3
WHISKEY CREEK PILLOW	6800	3/01/97	---	22.3	14.9	14.5
WHITE MILL PILLOW	8700	3/01/97	---	33.6	30.2	21.2
WHITE PINE RIDGE	8850	3/01/97	31	6.6	4.3	4.4
WILLOW CREEK	6500	2/24/97	36	8.8	7.0	7.1
WOOD CREEK PILLOW	5960	3/01/97	---	13.0	8.6	9.7
WRONG CREEK	5700	2/25/97	54	15.1	14.2	12.0
WRONG RIDGE	6800	2/26/97	61	19.8	17.8	16.6

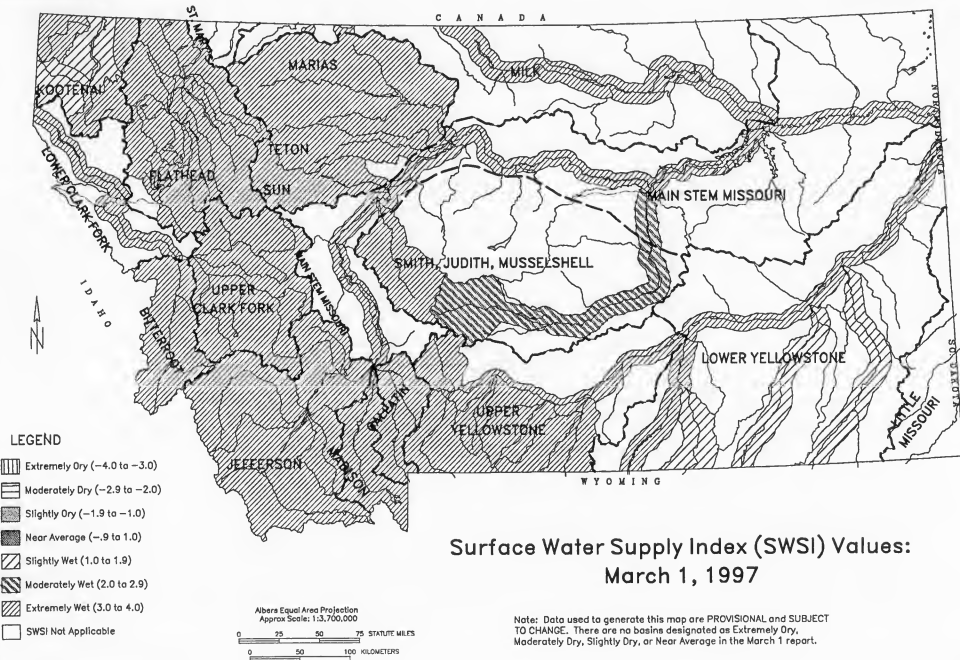
MOUNTAIN SNOWWATER EQUIVALENT FOR MONTANA



STREAM FLOW PROSPECTS FOR MONTANA

Spring and Summer Period







Montana Water Supply Outlook Report as of March 1, 1996

February once again has been a month where temperatures have gone from cold to warm with a few small storm systems producing mountain snow showers. Storms that produced the most snowfall occurred in southwest and southcentral Montana, mainly moving along the continental divide. Storms across other mountain areas produced mostly scattered snow showers with small snow water increases.

Snowpack

As of March 1, and with about 85 percent of the winter snowpack in place, mountain snow water content across Montana was 48 percent above average and 35 percent above last year. All Major River Basins in Montana have snow water contents well above average for this time of year, with the Madison, Gallatin, and Upper Yellowstone setting new March 1 record highs. The previous record high, during the period 1961 through 1996, in the Madison was set in 1969 at 140 percent of average, in the Gallatin in 1965 at 152 percent of average and in the Upper Yellowstone in 1971 at 144 percent of average. Several stations continue to set new record highs in southwest and southcentral Montana and Bighorn Mountains of Wyoming.

West of the Continental Divide, snow water content was 47 percent above average and 38 percent above last year. East of the Continental Divide snow water content was 46 percent above average and 28 percent above last year.

Spring and summer surface water supplies look good to excellent in all areas of the state. Streamflows are expected to be above to well above average in most areas and snowmelt runoff peak flows could be at record highs, depending upon spring rain and spring temperatures. People in low lying floodplain areas should keep an eye tuned to their nearby stream or river. If high water becomes a threat, individuals need to contact their local Disaster and Emergency Services Coordinator or the National Weather Service to obtain information to monitor expected stream and river rises.

RIVER BASIN	% OF AVERAGE	% OF LAST YEAR
COLUMBIA	147	138
KOOTENAI	131	123
FLATHEAD	151	141
UPPER CLARK FORK	147	133
BITTERROOT	153	130
LOWER CLARK FORK	140	137
MISSOURI	146	136
MISSOURI HEADWATERS	154	136
JEFFERSON	149	125
MADISON	155	136
GALLATIN	162	150
MISSOURI MAINSTEM	129	133
HEADWATERS MAINSTEM	131	125
SMITH-JUDITH-MUSSELSHELL	133	144
SUN-TETON-MARIAS	130	123
MILK	106	198
ST. MARY	143	132
ST. MARY & MILK	130	147
YELLOWSTONE	148	122
UPPER YELLOWSTONE	162	125
LOWER YELLOWSTONE (WYOMING)	135	114
WIND	143	112
SHOSHONE	160	101
BIGHORN	140	114
TONGUE	114	112
POWDER	128	133

Precipitation

February precipitation across the state was 6 percent below average and the water year precipitation was 45 percent above average.

West of the Continental Divide, February precipitation was 7 percent below average and 36 percent below last year, and water year precipitation was 44 percent above average and 3 percent below last year. East of the Continental Divide, February precipitation was 4 percent below average and 27 percent below last year, and water year precipitation was 47 percent above average and 14 percent above last year.

RIVER BASIN	FEBRUARY % OF AVERAGE	WATER YEAR % OF AVERAGE
COLUMBIA	93	144
KOOTENAI	80	137
FLATHEAD	100	147
UPPER CLARK FORK	91	142
BITTERROOT	93	148
LOWER CLARK FORK	84	137
MISSOURI	91	142
JEFFERSON	90	148
MADISON	93	161
GALLATIN	120	158
MISSOURI MAINSTEM	78	123
SMITH-JUDITH-MUSSELSHELL ...	87	129
SUN-TETON-MARIAS	77	124
MILK	56	102
ST. MARY	78	136
YELLOWSTONE	104	149
UPPER YELLOWSTONE	113	163
LOWER YELLOWSTONE	91	136
WIND	62	135
SHOSHONE	99	172
BIGHORN	131	122

Reservoirs

Major reservoir storage across the state was 7 percent below average and 24 percent below last year. West of the Continental Divide, reservoirs were 12 percent below average and 32 percent below last year. East of the Continental Divide, reservoirs were 10 percent above average and 14 percent below last year.

Keep in mind that this year reservoir operators are releasing water in reservoirs earlier than normal in anticipation of the well above average snowpack we have this year. Ice fishermen need to keep in mind that water is being released from many reservoirs and the ice may become unsafe earlier than expected. Other recreationists planning on using reservoirs this spring need to be aware that they may be lower than normal in preparation for the high snowpack runoff. Recreationists that plan on using streams below reservoirs this spring, need to be aware of possible fluctuations in rivers due to reservoir managers adjusting outflows to manage anticipated large inflows to reservoirs. It would be best to contact reservoir managers and ask what their reservoir operation plans are during your planned visit.

RIVER BASIN	% OF CAPACITY	% OF AVERAGE
COLUMBIA	88	68
KOOTENAI	91	69
FLATHEAD	85	66
UPPER CLARK FORK	105	83
BITTERROOT	84	56
LOWER CLARK FORK	98	90
MISSOURI	100	87

Reservoirs (continued)

RIVER BASIN	% OF CAPACITY	% OF AVERAGE
JEFFERSON	111	96
MADISON	97	97
GALLATIN	--	--
MISSOURI MAINSTEM	89	87
SMITH-JUDITH-MUSSELSHELL	104	73
SUN-TETON-MARIAS	120	84
MILK	127	93
ST. MARY	120	84
YELLOWSTONE	94	92
UPPER YELLOWSTONE	95	98
LOWER YELLOWSTONE	93	92

Streamflow

Streamflow forecasts across Montana were 42 percent above average and 30 percent above last years forecasts. West of the Continental Divide, streamflows are forecast to be 37 percent above average and 16 percent above last years forecasts. East of the Continental Divide, streamflows are forecast to be 44 percent above average and 125 percent above last years forecasts.

Some streamflow forecasts, for the period April through July, are forecast to be at new record highs in the Upper Clark Fork, Bitterroot, Madison, Gallatin, Missouri Mainstem, Upper Yellowstone, and Lower Yellowstone River Basins. Please see individual river basins for details.

Snowmelt runoff flows could reach record highs, depending upon spring rain and temperatures. Those with properties in low-lying, floodplain areas should watch for sudden rise in streams or rivers, and contact the local disaster and emergency services coordinator or the National Weather Service to monitor high water conditions.

RIVER BASIN	FORECASTS	FORECASTS
	% OF AVERAGE	% OF LAST YEAR
COLUMBIA	137	116
KOOTENAI	114	93
FLATHEAD	133	109
UPPER CLARK FORK	149	143
BITTERROOT	147	115
LOWER CLARK FORK	142	122
MISSOURI	147	130
JEFFERSON	156	128
MADISON	146	125
GALLATIN	151	136
MISSOURI MAINSTEM	161	134
SMITH-JUDITH-MUSSELSHELL	143	133
SUN-TETON-MARIAS	137	122
MILK	136	134
ST. MARY	125	116
YELLOWSTONE	160	130
UPPER YELLOWSTONE	159	130
LOWER YELLOWSTONE	160	129

NOTE: The **FORECAST AS % OF LAST YEAR** column above, is this years forecast as a percent of last years forecast, not of what actually occurred.

Surface Water Supply Index

The Surface Water Supply Index (SWSI) is an indicator of surface water supply conditions for the spring and summer months. Water users that rely on mountain precipitation can use the index to evaluate seasonal surface water supplies. The SWSI accounts for mountain snowpack, mountain precipitation, streamflow, reservoir storage, and soil moisture.

SWSI RATING	SURFACE WATER CONDITION
+3.0 to +4.0	Extremely Wet
+2.0 to +3.0	Moderately Wet
+1.0 to +2.0	Slightly Wet
-1.0 to +1.0	Near Average
-1.0 to -2.0	Slightly Dry
-2.0 to -3.0	Moderately Dry
-3.0 to -4.0	Extremely Dry

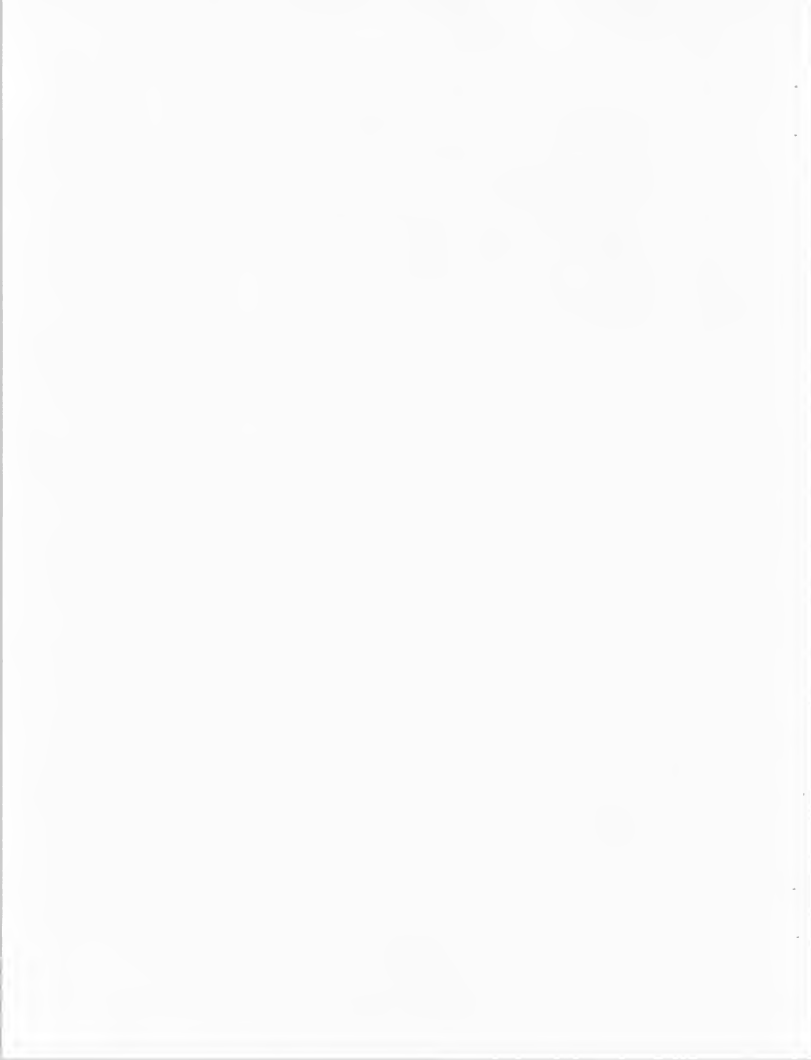
SWSI

Basin

+1.5	Kootenai River at Ft. Steele (Kootenai in Canada)
+3.0	Tobacco River
+1.5	Kootenai Ft. Steele to Libby Dam
+1.3	Kootenai River below Libby Dam
+1.3	Fisher River
+3.3	Yaak River
+3.5	North Fork Flathead River
+3.3	Middle FORK Flathead River
+3.3	South Fork Flathead River
+3.4	Flathead River at Columbia Falls
+3.2	Stillwater/Whitefish Rivers
+3.8	Swan River
+3.0	Flathead River at Polson
+3.9	Mission Valley
+3.3	Little Bitterroot River
+3.2	Clark Fork River above Rock Creek
+3.0	Blackfoot River
+3.1	Clark Fork River above Missoula
+3.7	Bitterroot River
+3.2	Clark Fork River below Bitterroot River
+3.1	Clark Fork River below Flathead River
+3.2	Beaverhead River
+3.3	Ruby River
+3.4	Big Hole River
+3.2	Boulder River (Jefferson)
+3.4	Jefferson River
+4.0	Madison River
+4.0	Gallatin River
+3.7	Missouri River above Canyon Ferry
+3.7	Missouri River below Canyon Ferry
+3.3	Smith River
+2.6	Sun River
+2.1	Teton River
+2.7	Birch/Dupuyer Creeks
+2.8	Marias River
+2.8	Musselshell River
+3.3	Missouri River above Ft. Peck
+3.3	Missouri River below Ft. Peck
+2.9	Milk River (USBR users)

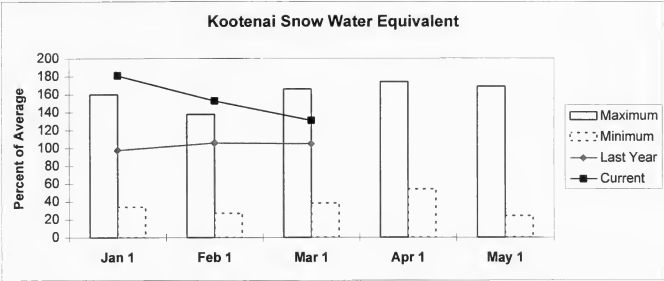
Surface Water Supply Index (continued)

SWSI	Basin
+4.0	Yellowstone River above Livingston
+4.0	Shields River
+4.0	Boulder River (Yellowstone)
+4.0	Stillwater River
+4.0	Rock/Red Lodge Creeks
+4.0	Clarks Fork River
+4.0	Yellowstone River above Bighorn River
+3.6	Bighorn River below Bighorn Lake
+1.4	Little Bighorn River
+3.8	Yellowstone River below Bighorn River
+1.6	Tongue River
+2.1	Powder River



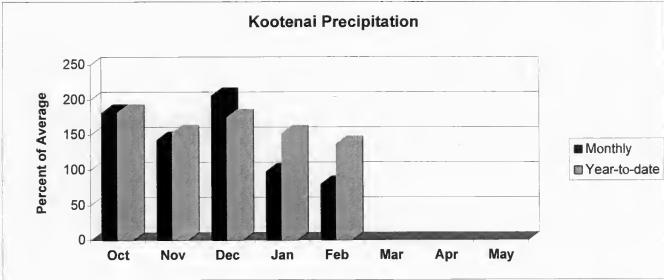
Kootenai River Basin in Montana

Snowpack conditions in the Kootenai River Basin of Montana and Canada were above average. Snow water content for the Kootenai in Montana was 31 percent above average, 23 percent above last year, and fifth highest of record for the period 1961-1996. Snow water content for the Kootenai in Canada was 25 percent above average and 3 percent above last year.



January maximum swe was established in 1985 and minimum was in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1974 and minimum swe was in 1977; May maximum swe was in 1974 and minimum swe was in 1977; and June maximum swe was in 1974 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during February was 21 percent below average and 49 percent below last year. Valley precipitation during February was 7 percent above average and 5 percent above last year. Water year precipitation, beginning October 1, 1996, was 37 percent above average and 8 percent below last year.



Lake Koocanusa storage, on the last day of February, was 9 percent below average and 31 percent below last year.

Streamflows, for the period April through July, are forecast to be 14 percent above average and 7 percent below last years forecasts.

Surface Water Supply Index (SWSI) was +1.5 in the Kootenai at Ft. Steele (Kootenai in Canada); +3.0 in the Tobacco River; +1.5 in the Kootenai Ft. Steele to Libby Dam; +1.3 in the Kootenai River below Libby Dam; +1.3 in the Fisher River; and +3.3 in the Yaak River.

KOOTENAI RIVER BASIN in Montana
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>		30-Yr Avg. (1000AF)
		90%	70%	50% (Most Probable)		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
TOBACCO RIVER nr Eureka	APR-JUL	175	190	200	150	210	225	133
	APR-SEP	191	208	220	150	232	249	147
LIBBY RES Inflow (1,2)	APR-JUL	5157	5977	6350	110	6723	7543	5779
	APR-SEP	6040	7003	7440	110	7877	8840	6772
FISHER RIVER near Libby	APR-JUL	338	357	370	158	383	402	234
	APR-SEP	363	382	395	158	408	427	250
YAAK RIVER near Troy	APR-JUL	700	736	760	157	784	820	483
	APR-SEP	728	765	790	156	815	852	505
KOOTENAI at Leonia (1,2)	APR-JUL	6532	7562	8030	112	8498	9528	7199
	APR-SEP	7506	8692	9230	112	9768	10954	8275

KOOTENAI RIVER BASIN in Montana					KOOTENAI RIVER BASIN in Montana			
Reservoir Storage (1000 AF) - End of February					Watershed Snowpack Analysis - March 1, 1997			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
LAKE KOOCANUSA	5748.0	1745.0	2534.0	1921.0	KOOTENAY in CANADA	20	102	125
					KOOTENAI MAINTSTEM	2	133	130
					TOBACCO	3	96	126
					FISHER	3	121	91
					YAAK	7	139	151
					KOOTENAI in MONTANA	15	123	131
					abv BONNERS FERRY	35	112	128

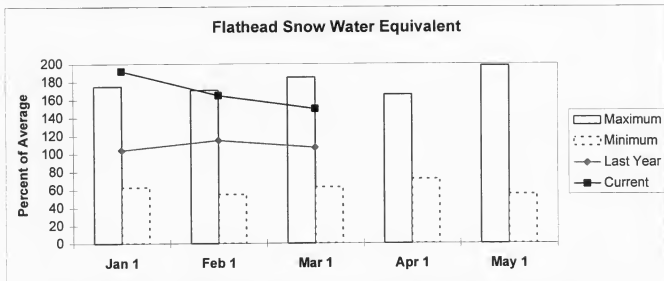
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

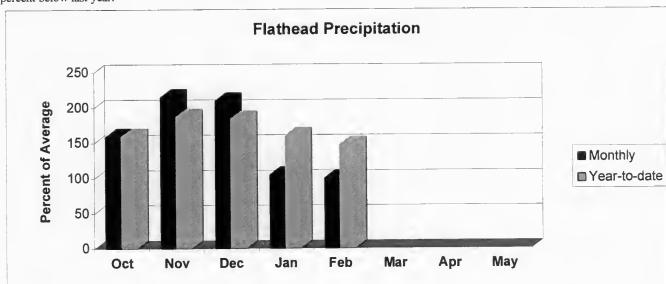
Flathead River Basin

Snowpack conditions in the Flathead River Basin of Montana and Canada were well above average. Snow water content for the Flathead River Basin in Montana was 50 percent above average, 38 percent above last year, and sixth highest of record, for the period 1961-1996. Snow water content for the Flathead River Basin in Canada was 35 percent above average and 21 percent above last year.



January maximum swe was established in 1991 and minimum was in 1988; February maximum swe was in 1972 and minimum was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum was in 1992; May maximum swe was in 1972 and minimum was in 1992; and June maximum swe was in 1974 and minimum was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during February was average and 26 percent below last year. Valley precipitation during February was 6 percent above average and 14 percent below last year. Water year precipitation, beginning October 1, 1996, was 47 percent above average and 1 percent below last year.



Reservoir storage, on the last day of February, was 15 percent below average and 34 percent below last year. Combined Camas reservoir storage was 54 percent above average and 31 percent above last year; combined Mission Valley reservoir storage was 16 percent below average and 25 percent below last year; Hungry Horse storage was 24 percent below average and 36 percent below last year; and Flathead Lake storage was 6 percent above average and 31 percent below last year.

Streamflows, for the period April through July, are forecast to be 33 percent above average and 9 percent above last years forecasts. Snowmelt runoff flows could reach record highs, depending upon spring rain and temperatures. Those with properties in low-lying, floodplain areas should watch for sudden rise in streams or rivers, and contact the local disaster and emergency services coordinator or the National Weather Service to monitor high water conditions.

Surface Water Supply Index (SWSI) was +3.5 in the North Fork Flathead River; +3.3 in the Middle Fork Flathead River; +3.3 in the South Fork Flathead River; +3.4 in the Flathead River at Columbia Falls; +3.2 in the Stillwater/Whitefish Rivers; +3.8 in the Swan River; +3.0 in the Flathead River at Polson; +3.9 in the Mission Valley; and +3.3 in the Little Bitterroot River.

FLATHEAD RIVER BASIN
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		>>===== Wetter =====>>		30-Yr Avg. (1000AF)
		90%	70%	Chance Of Exceeding *		30%	10%	
		(1000AF)	(1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	(1000AF)	(1000AF)	
=====								
NF FLATHEAD nr Columbia Falls	APR-JUL	1986	2090	2160	130	2230	2334	1662
	APR-SEP	2195	2311	2390	130	2469	2585	1836
MF FLATHEAD nr West Glacier	APR-JUL	1941	2065	2150	131	2235	2359	1638
	APR-SEP	2118	2256	2350	131	2444	2582	1788
HUNGRY HORSE Reservoir Inflow (1,2)	APR-JUL	2448	2663	2760	135	2857	3072	2051
	APR-SEP	2606	2836	2940	135	3044	3274	2184
FLATHEAD at Columbia Falls (2)	APR-JUL	6496	6868	7120	130	7372	7744	5482
	APR-SEP	7059	7465	7740	130	8015	8421	5960
STILLWATER nr Whitefish	APR-JUL	238	263	280	148	297	322	189
	APR-SEP	260	290	310	148	330	360	209
WHITEFISH nr Kalispell	APR-JUL	135	147	155	149	163	175	104
	APR-SEP	151	165	175	151	185	199	116
SWAN RIVER near Bigfork	APR-JUL	740	785	815	140	845	890	583
	APR-SEP	845	896	930	140	964	1015	665
FLATHEAD Lake Inflow (1,2)	APR-JUL	7562	8331	8680	136	9029	9798	6390
	APR-SEP	8187	9021	9400	136	9779	10613	6926

Reservoir Storage (1000 AF) - End of February					Watershed Snowpack Analysis - March 1, 1997			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of Last Yr Average	
		This Year	Last Year	Avg			Last Yr	Average
CAMAS (4)	45.2	32.3	24.6	21.0	NORTH FORK FLATHEAD in CA	2	138	145
MISSION VALLEY (8)	100.0	31.7	42.5	37.8	NORTH FORK FLATHEAD in MT	9	116	138
HUNGRY HORSE	3451.0	1681.0	2635.0	2205.0	MIDDLE FORK FLATHEAD	6	130	140
FLATHEAD LAKE	1791.0	935.1	1354.0	881.0	SOUTH FORK FLATHEAD	7	163	160
					STILLWATER-WHITEFISH	10	137	147
					SWAN	7	155	161
					MISSION VALLEY	4	168	172
					LITTLE BITTERROOT-ASHLEY	6	180	158
					JOCKO	5	136	153
					FLATHEAD in MONTANA	40	141	151
					FLATHEAD BASIN	42	141	151

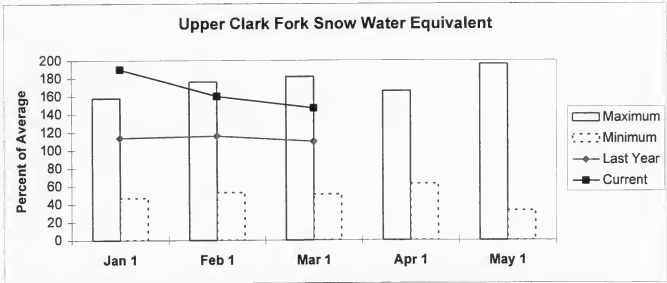
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

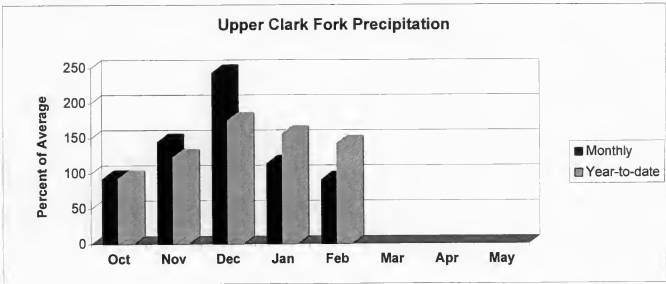
Upper Clark Fork River Basin

Snowpack conditions in the Upper Clark Fork River Basin were well above average and third highest of record, for the period 1961-1996. Snow water content was 47 percent above average and 33 percent above last year.



January maximum swc was established in 1978 and minimum swc was in 1977; February maximum was in 1972 and minimum swc was in 1977; March maximum swc was in 1972 and minimum swc was in 1977; April maximum swc was in 1972 and minimum swc was in 1994; May maximum swc was in 1972 and minimum swc was in 1977; and June maximum swc was in 1975 and minimum swc was in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during February was 11 percent below average 29 percent below last year. Valley precipitation during February was 7 percent above average and 28 percent below last year. Water year precipitation, beginning October 1, 1996, was 42 percent above average and 3 percent above last year.



Reservoir storage, on the last day of February, was 5 percent above average and 17 percent below last year. Georgetown Lake storage was 11 percent above average and 1 percent above last year; Lower Willow Creek storage was 12 percent above average and 32 percent below last year; and Nevada Creek storage was 24 percent below average and 63 percent below last year.

Streamflows, for the period April through July, are forecast to be 49 percent above average and 43 percent above last years forecasts. Snowmelt runoff flows could reach record highs, depending upon spring rain and temperatures. Those with properties in low-lying, floodplain areas should watch for sudden rise in streams or rivers, and contact the local disaster and emergency services coordinator or the National Weather Service to monitor high water conditions.

There are new record streamflows forecast for the period April through July at Clearwater near Clearwater and Blackfoot River near Bonner.

Surface Water Supply Index (SWSI) was +3.2 in the Clark Fork River above Rock Creek; +3.0 in the Blackfoot River; and +3.1 in the Clark Fork River above Missoula.

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UPPER CLARK FORK RIVER BASIN
Streamflow Forecasts - March 1, 1997

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Forecast Point	Forecast Period	<----- Drier ----- Future Conditions ----- Wetter ----->				30-Yr Avg. (1000AF)		
		90%	70%	Chance of Exceeding *			30%	10%
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)		(1000AF)	(1000AF)
WARM SPRINGS CK at Anaconda (2)	APR-JUL	39	46	50	132	55	61	38
	APR-SEP	48	55	60	128	65	72	47
LITTLE BLACKFOOT nr Garrison	APR-JUL	68	96	115	139	134	163	83
	APR-SEP	74	104	125	140	146	176	89
FLINT CK nr Southern Cross (2)	APR-JUL	16.0	19.6	22	155	24	28	14.2
	APR-SEP	19.5	24	27	162	30	35	16.7
FLINT CK bl Boulder Ck	APR-JUL	67	80	89	156	98	111	57
	APR-SEP	86	101	112	153	123	138	73
LOWER WILLOW CK RES Inflow	APR-JUL	14.4	17.8	20	144	23	26	14.0
	APR-SEP	15.2	18.8	21	143	24	27	14.8
MF ROCK CREEK nr Philipsburg	APR-JUL	83	93	100	152	107	118	66
	APR-SEP	91	102	110	149	118	129	74
ROCK CREEK near Clinton	APR-JUL	377	423	455	154	487	533	296
	APR-SEP	418	470	505	152	540	592	333
NEVADA CK nr Finn	APR-JUL	16.3	21	24	124	27	31	19.1
	APR-SEP	17.9	23	26	122	29	34	21
CLEARWATER nr Clearwater	APR-JUL	253	266	275	160	284	297	172
	APR-SEP	267	281	290	160	299	313	181
BLACKFOOT RIVER near Bonner	APR-JUL	1214	1301	1360	163	1419	1506	835
	APR-SEP	1348	1444	1510	163	1576	1672	926
CLARK FORK ab Milltown	APR-JUL	791	933	1030	158	1127	1269	652
	APR-SEP	926	1083	1190	158	1297	1454	755
CLARK FORK ab Missoula	APR-JUL	2017	2239	2390	161	2541	2763	1487
	APR-SEP	2285	2526	2690	160	2854	3095	1681

UPPER CLARK FORK RIVER BASIN Reservoir Storage (1000 AF) - End of February					UPPER CLARK FORK RIVER BASIN Watershed Snowpack Analysis - March 1, 1997			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
	Year	This Year	Last Year	Avg			Last Yr	Average
GEORGETOWN LAKE	31.0	28.4	28.0	25.7	CLARK FORK abv FLINT CRK	15	130	141
LOWER WILLOW CREEK	4.9	1.9	2.8	1.7	FLINT CREEK	6	145	157
NEVADA CREEK	12.6	3.8	10.4	5.0	ROCK CREEK	5	134	152
					CLARK FORK abv BLACKFOOT	23	134	147
					BLACKFOOT	16	130	145
					UPPER CLARK FORK BASIN	36	133	147

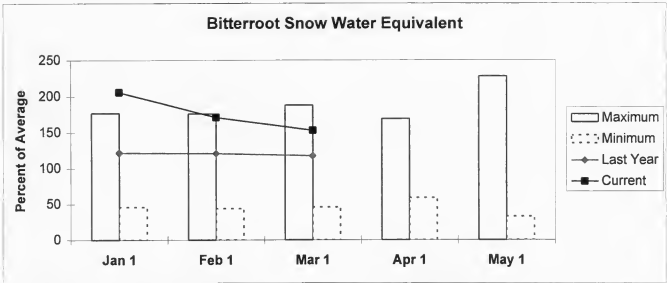
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The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

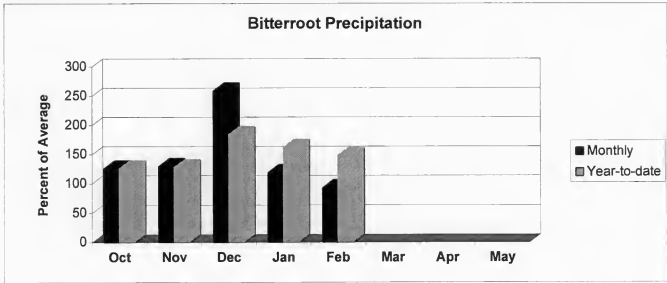
Bitterroot River Basin

Snowpack conditions in the Bitterroot River Basin were well above average and the second highest of record, for the period 1961-1996. Snow water content was 53 percent above average and 30 percent above last year.



January maximum swe was established in 1965 and minimum swe in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1977; May maximum swe was in 1972 and minimum swe was in 1987; and June maximum swe was 1972 and 1974 and minimum swe was in 1987 and 1992. Average is for the period 1961 through 1990.

Mountain precipitation during February was 5 percent below average and 37 percent below last year. Valley precipitation during February was 26 percent below average and 57 percent below last year. Water year precipitation, beginning October 1, 1996, was 48 percent above average 6 percent below last year.



Reservoir storage, on the last day of February, was 16 percent below average and 44 percent below last year. Painted Rocks Lake storage was 54 percent below average and 70 percent below last year and Como storage was 21 percent above average and 21 percent below last year.

Streamflows, for the period April through July, are forecast to be 47 percent above average and 15 percent above last years forecasts. Snowmelt runoff flows could reach record highs, depending upon spring rain and temperatures. Those with properties in low-lying, floodplain areas should watch for sudden rise in streams or rivers, and contact the local disaster and emergency services coordinator or the National Weather Service to monitor high water conditions.

There is a new record streamflow forecast for the period April through July at Skalkaho Creek near Hamilton.

Surface Water Supply Index (SWSI) was +3.7 in the Bitterroot River.

BITTERROOT RIVER BASIN
Streamflow Forecasts - March 1, 1997

		<<===== Drier ===== Future Conditions ===== Wetter =====>>							
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg.	
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)		
WF BITTERROOT nr Conner (2)	APR-JUL	190	214	230	151	246	270	152	
	APR-SEP	207	233	250	151	267	293	166	
BITTERROOT nr Darby	APR-JUL	618	682	725	148	768	832	491	
	APR-SEP	690	756	800	148	844	910	540	
ROCK CK nr Darby (2)	APR-JUL	97	105	110	139	115	123	79	
	APR-SEP	102	110	115	139	120	128	83	
SKALKAHO CK nr Hamilton	APR-JUL	59	64	68	148	72	77	46	
	APR-SEP	67	73	77	145	81	87	53	
BURNT FORK CK nr Stevensville (2)	APR-JUL	32	37	40	138	43	48	29	
	APR-SEP	37	42	46	135	50	55	34	
BITTERROOT at Missoula	APR-JUL	1711	1841	1930	148	2019	2149	1301	
	APR-SEP	1864	2005	2100	148	2195	2336	1418	

BITTERROOT RIVER BASIN Reservoir Storage (1000 AF) - End of February					BITTERROOT RIVER BASIN Watershed Snowpack Analysis - March 1, 1997			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number Of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
		Year	Year					
PAINTED ROCKS LAKE	31.7	5.6	18.4	12.3	WEST FORK BITTERROOT	3	115	149
COMO	34.9	15.8	20.1	13.1	EAST SIDE BITTERROOT	5	123	157
					WEST SIDE BITTERROOT	3	138	151
					BITTERROOT BASIN	10	130	153

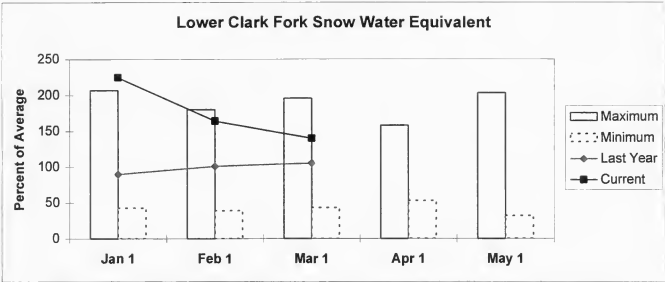
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

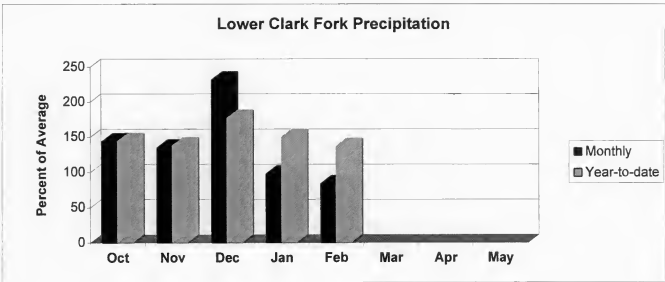
Lower Clark Fork River Basin

Snowpack conditions in the Lower Clark Fork River Basin were well above average and the fourth highest of record for the period 1961-1996. Snow water content was 40 percent above average and 37 percent above last year.



January maximum swe was established in 1985 and minimum swe was in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum swe was in 1981; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum swe was in 1974 and minimum swe was in 1977. Average is for the period 1961 through 1990.

Mountain precipitation during February was 17 percent below average and 50 percent below last year. Valley precipitation during February was 10 percent below average and 52 percent below last year. Water year precipitation, beginning October 1, 1996, was 37 percent above average and 11 percent below last year.



Noxon Rapids storage, on the last day of February, was 2 percent below average and 10 percent below last year.

Streamflows, for the period April through July, are forecast to be 42 percent above average and 22 percent above last years forecasts.

Surface Water Supply Index (SWSI) was +3.2 in the Clark Fork River below Bitterroot River and +3.1 in the Clark Fork River below Flathead River.

LOWER CLARK FORK RIVER BASIN
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding *		30% (1000AF)	10% (1000AF)	
				50% (Most Probable) (1000AF)	(% AVG.)			

CLARK FORK ab Missoula	APR-JUL	2017	2239	2390	161	2541	2763	1487
	APR-SEP	2285	2526	2690	160	2854	3095	1681
CLARK FORK bl Missoula	APR-JUL	3757	4092	4320	155	4548	4883	2788
	APR-SEP	4192	4554	4800	155	5046	5408	3099
CLARK FORK at St. Regis (1)	APR-JUL	4329	5196	5590	152	5984	6851	3686
	APR-SEP	4800	5763	6200	151	6637	7600	4095
CLARK FORK nr Plains (1,2)	APR-JUL	12107	13821	14600	140	15379	17093	10450
	APR-SEP	13259	15144	16000	140	16856	18741	11470
THOMPSON RIVER nr Thompson Falls	APR-JUL	224	251	270	126	289	316	214
	APR-SEP	251	280	300	125	320	349	240
PROSPECT CREEK at Thompson Falls	APR-JUL	138	151	160	130	169	182	123
	APR-SEP	148	161	170	129	179	192	132
CLARK FK at Whitehorse Rpds (1,2)	APR-JUL	13135	15105	16000	136	16895	18865	11730
	APR-SEP	14447	16615	17600	136	18585	20753	12910

LOWER CLARK FORK RIVER BASIN					LOWER CLARK FORK RIVER BASIN			
Reservoir Storage (1000 AF) - End of February					Watershed Snowpack Analysis - March 1, 1997			
Reservoir	Usable Capacity	*** This Year	Usable Last Year	Storage Avg	Watershed	Number of Data Sites	This Year as % of Last Yr Average	
NOXON RAPIDS	335.0	291.1	324.0	298.1	LOWER CLARK FORK	11	137	140
					CLARK FORK BASIN	46	135	144
					abv PEND OUELLE LKE	90	138	148
					COLUMBIA in MONTANA	97	138	147
					COLUMBIA RIVER BASIN	118	132	144

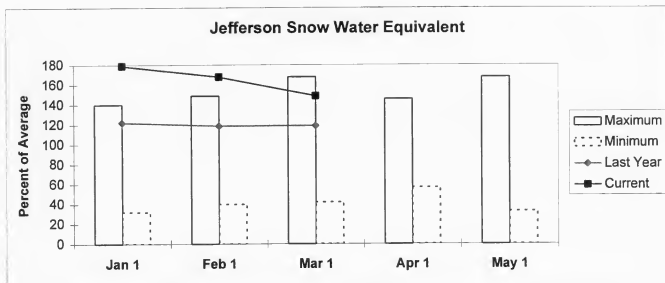
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

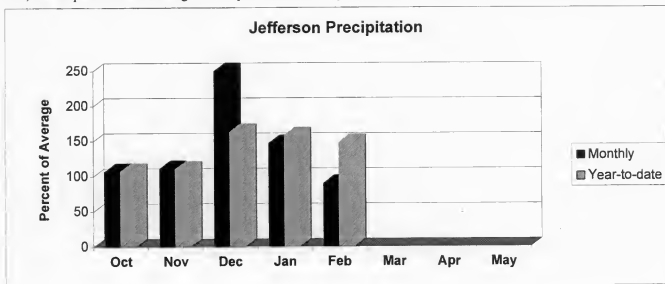
Jefferson River Basin

Snowpack conditions in the Jefferson River Basin were well above average and has tied the second highest of record, for the period 1961-1996. Snow water content was 49 percent above average and 25 percent above last year.



January maximum swe was established in 1976 and minimum swe was in 1977; February maximum swe was in 1969 and minimum was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum was in 1977; May maximum swe was in 1975 and minimum swe was in 1977; and June maximum swe was in 1982 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during February was 10 percent below average and 24 percent below last year. Valley precipitation during February was 2 percent above average and 45 percent below last year. Water year precipitation, beginning October 1, 1996, was 48 percent above average and 15 percent above last year.



Reservoir storage, on the last day of February, was 11 percent above average and 4 percent below last year. Lima storage was 46 percent above average and 9 percent below last year; Clark Canyon storage was 5 percent above average and 3 percent below last year; and Ruby River storage was 1 percent above average and 5 percent below last year.

Streamflows, for the period April through July, are forecast to be 56 percent above average and 28 percent above last years forecasts. Snowmelt runoff flows could reach record highs, depending upon spring rain and temperatures. Those with properties in low-lying, floodplain areas should watch for sudden rise in streams or rivers, and contact the local disaster and emergency services coordinator or the National Weather Service to monitor high water conditions.

Surface Water Supply Index (SWSI) was +3.2 in the Beaverhead River; +3.3 in the Ruby River; +3.4 in the Big Hole River; +3.2 in the Boulder River; and +3.4 in the Jefferson River as a whole.

JEFFERSON RIVER BASIN
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)		
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)				
				30% (1000AF)	10% (1000AF)			
RED ROCK RIVER near Monida (2)	APR-JUL	101	118	130	134	142	159	97
	APR-SEP	110	131	145	138	159	180	105
BEAVERHEAD RIVER near Grant (2)	APR-JUL	159	183	200	152	217	241	132
	APR-SEP	183	214	235	152	256	287	155
BEAVERHEAD RIVER at Barretts (2)	APR-JUL	191	220	240	140	260	289	172
	APR-SEP	229	259	280	138	301	331	203
RUBY RIVER near Alder	APR-JUL	82	100	112	135	124	142	83
	APR-SEP	100	121	135	136	149	170	99
BIG HOLE RIVER near Melrose	APR-JUL	800	919	1000	156	1081	1200	641
	APR-SEP	873	999	1085	156	1171	1297	697
BOULDER RIVER near Boulder	APR-JUL	95	116	130	153	144	165	85
	APR-SEP	103	125	140	154	155	177	91
WILLOW CREEK near Harrison	APR-JUL	17.8	24	28	157	32	38	17.7
	APR-SEP	19.2	26	31	155	36	43	20
JEFFERSON RIVER near Three Forks (2)	APR-JUL	1169	1366	1500	152	1634	1831	985
	APR-SEP	1301	1509	1650	153	1791	1999	1080

JEFFERSON RIVER BASIN Reservoir Storage (1000 AF) - End of February					JEFFERSON RIVER BASIN Watershed Snowpack Analysis - March 1, 1997			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
LIMA	84.0	50.4	55.2	34.5	BEAVERHEAD	15	127	148
CLARK CANYON	255.6	153.6	158.3	146.6	RUBY	10	124	141
RUBY RIVER	38.8	27.7	29.1	27.3	BIGHOLE	15	116	152
					BOULDER	8	138	151
					JEFFERSON RIVER BASIN	40	125	149

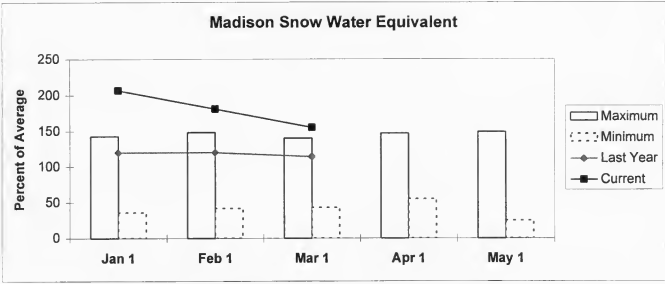
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

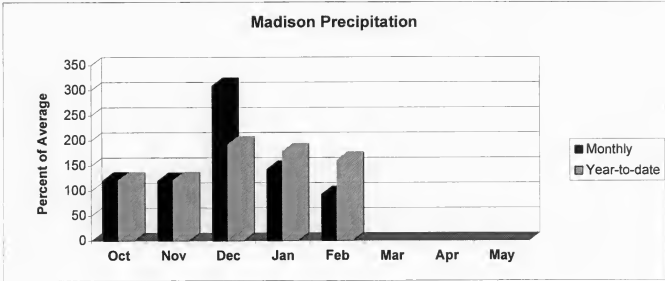
Madison River Basin

Snowpack conditions in the Madison River Basin were well above average and has set a new record, for the period 1961-1996, previously set in 1969 at 40 percent above average. Snow water content was 56 percent above average and 37 percent above last year.



January maximum swe was established in 1971 and minimum swe was in 1977; February maximum swe was in 1969 and minimum was in 1977; March maximum swe was in 1969 and minimum was in 1977; April maximum swe was in 1974 and minimum was in 1977; May maximum swe was in 1971 and minimum swe was in 1977; and June maximum swe was in 1995 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain and valley precipitation during February was 7 percent below average and 9 percent below last year. Water year precipitation, beginning October 1, 1996, was 61 percent above average and 33 percent above last year.



Reservoir storage, on the last day of February, was 3 percent below average and 3 percent below last year. Ennis Lake storage was 17 percent below average and 4 percent above last year and Hebgen Lake storage was 1 percent below average and 3 percent below last year.

Streamflows, for the period April through July, are forecast to be 46 percent above average and 25 percent above last years forecasts. Snowmelt runoff flows could reach record highs, depending upon spring rain and temperatures. Those with properties in low-lying, floodplain areas should watch for sudden rise in streams or rivers, and contact the local disaster and emergency services coordinator or the National Weather Service to monitor high water conditions.

There is a near record streamflow forecast for the period April through July at Hebgen Dam inflow and a new record forecast at Madison River near McAllister.

Surface Water Supply Index (SWSI) was +4.0 for the Madison River.

MADISON RIVER BASIN
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>		Chance Of Exceeding *				30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
MADISON RIVER near Grayling (2)	APR-JUL	474	513	540	142	567	606	380
	APR-SEP	610	658	690	142	722	770	486
MADISON RIVER near McAllister (2)	APR-JUL	879	939	980	148	1021	1081	662
	APR-SEP	1103	1170	1215	146	1260	1327	831

MADISON RIVER BASIN Reservoir Storage (1000 AF) - End of February				MADISON RIVER BASIN Watershed Snowpack Analysis - March 1, 1997			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of Last Yr Average
		This Year	Last Year	Avg			
ENNIS LAKE	41.0	28.2	27.1	34.1	MADISON abv HEBGEN LAKE	6	139
HEBGEN LAKE	377.5	245.7	253.9	247.8	MADISON blw HEBGEN LAKE	11	134
					MADISON RIVER BASIN	17	136

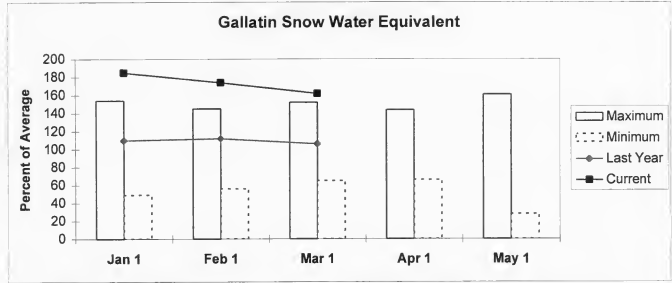
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

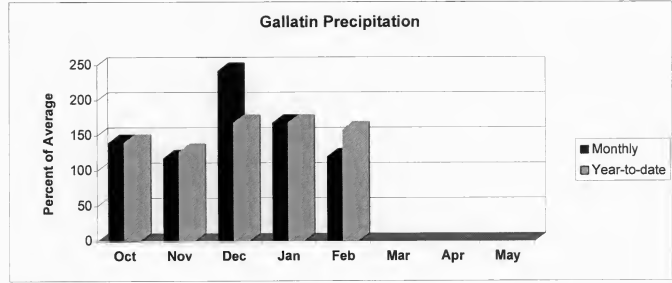
Gallatin River Basin

Snowpack conditions in the Gallatin River Basin were well above average and has set a new record, for the period 1961-1996, previously set in 1965 at 52 percent above average. Snow water content was 62 percent above average and 50 percent above last year.



January maximum swe was established in 1968 and minimum swe was in 1966; February maximum swe was in 1965 and minimum was in 1981; March maximum swe was in 1965 and minimum was in 1977 and 1987; April maximum swe was in 1971 and minimum was in 1987; May maximum swe was in 1970 and minimum swe was in 1987; and June maximum swe was in 1975 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during February was 20 percent above average and 27 percent above last year. Valley precipitation during February was 14 percent above average and 24 percent below last year. Water year precipitation, beginning October 1, 1996, was 58 percent above average and 31 percent above last year.



Middle Creek storage, on the last day of February, was NOT AVAILABLE.

Streamflows, for the period April through July, are forecast to be 51 percent above average and 36 percent above last years forecasts. Snowmelt runoff flows could reach record highs, depending upon spring rain and temperatures. Those with properties in low-lying, floodplain areas should watch for sudden rise in streams or rivers, and contact the local disaster and emergency services coordinator or the National Weather Service to monitor high water conditions.

There are record streamflows forecast for the period April through July at Gallatin River near Gateway and Gallatin River at Logan.

Surface Water Supply Index (SWSI) was +4.0 for the Gallatin River.

Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *		Chance Of Exceeding *		Chance Of Exceeding *		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
=====								
GALLATIN RIVER near Gateway	APR-JUL	577	621	650	147	679	723	441
	APR-SEP	681	728	760	147	792	839	518
E & W FK HYALITE CREEK near Bozeman	APR-JUL	28	31	33	144	35	38	23
	APR-SEP	32	36	38	146	40	44	26
HYALITE CREEK near Bozeman (2)	APR-JUL	43	48	52	144	56	61	36
	APR-SEP	51	56	60	143	64	70	42
GALLATIN RIVER at Logan (2)	APR-JUL	629	713	770	155	827	911	498
	APR-SEP	753	841	900	155	959	1047	581

GALLATIN RIVER BASIN					GALLATIN RIVER BASIN				
Reservoir Storage (1000 AF) - End of February					Watershed Snowpack Analysis - March 1, 1997				
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of		Average
		This Year	Last Year	Avg			Last Yr	Average	
		Year	Year						
MIDDLE CREEK		NO REPORT			UPPER GALLATIN	7	139		163
					HYALITE	4	156		149
					BRIDGER	4	167		172
					GALLATIN RIVER BASIN	15	150		162
					MISSOURI HEADWATERS	65	136		154

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

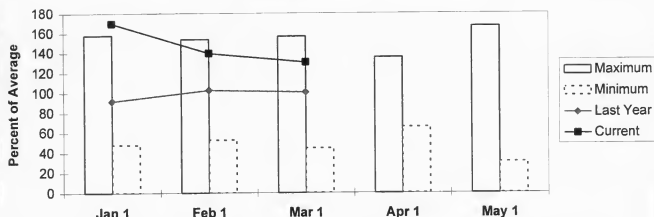
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

Missouri Mainstem River Basin

Snowpack conditions in the Missouri Mainstem River Basin were above average. Snow water content in the Headwaters Missouri Mainstem was 31 percent above average, 25 percent above last year, and second highest of record for the period 1961-1996; the Smith-Judith-Musselshell was 33 percent above average, 44 percent above last year, and fifth highest of record for the period 1961-1996; and the Sun-Teton-Marias was 30 percent above average, 23 percent above last year, and fourth highest of record for the period 1961-1996.

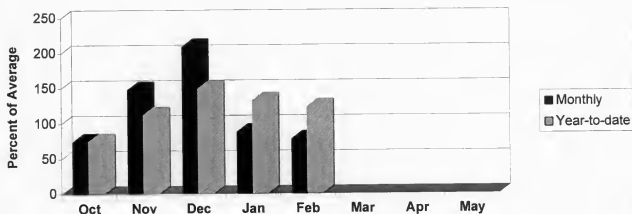
Headwaters Mainstem Snow Water Equivalent



January maximum swe was established in 1978 and minimum swe in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1961; May maximum swe was in 1975 and minimum swe was in 1977; and June maximum swe was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during February was 19 percent below average and 30 percent below last year. Valley precipitation during February was 39 percent below average and 19 percent below last year. Water year precipitation, beginning October 1, 1996, was 23 percent above average and 10 percent above last year.

Headwaters Mainstem Precipitation



Reservoir storage, on the last day of February, was 11 percent below average and 13 percent below last year. Canyon Ferry Lake storage was 13 percent below average and 15 percent below last year; Helena Valley storage was 38 percent above average and 29 percent above last year; Lake Helena storage was 9 percent above average and the same as last year; Hauser & Helena storage was 4 percent above average and the same as last year; Holter Lake storage was 19 percent above average and the same as last year; and Fort Peck Lake storage was 4 percent above average and 4 percent below last year. Reservoirs are being drawn down earlier than normal this year in anticipation of the record or near record spring runoff. Those using the reservoirs now or plan to use the reservoirs this spring and early summer need to contact the reservoir owner and ask what the reservoir operation plan will be for their planned visit.

Streamflows, for the period April through July, are forecast to be 61 percent above average and 34 percent above last years forecasts. There is a new streamflow record forecast for the period April through July at the Missouri River at Toston.

Surface Water Supply Index (SWSI) was +3.7 in the Missouri River above Canyon Ferry; +3.7 in the Missouri River below Canyon Ferry; +3.3 in the Missouri River above Fort Peck; and +3.3 in the Missouri River below Fort Peck.

MISSOURI MAINSTEM RIVER BASIN
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
		Chance Of Exceeding *						
MISSOURI RIVER at Toston (2)	APR-JUL	2498	2916	3200	154	3484	3902	2075
	APR-SEP	3117	3425	3720	154	4015	4325	2416
PRICKLY PEAR CREEK near Clancy	APR-JUL	10.4	20	27	115	33	43	23
	APR-SEP	12.9	24	31	115	38	49	27
SUN RIVER at Gibson Dam (2)	APR-JUL	483	559	610	128	661	737	478
	APR-SEP	531	611	665	126	719	799	526
MISSOURI RIVER at Fort Benton (2)	APR-JUL	3719	4452	4950	160	5448	6181	3087
	APR-SEP	4781	5381	5920	161	6459	7025	3678
MARIAS RIVER near Shelby (2)	APR-JUL	497	588	650	145	712	803	447
	APR-SEP	526	613	675	139	737	884	487
MISSOURI RIVER at Virgelle (2)	APR-JUL	4371	5195	5755	160	6315	7139	3595
	APR-SEP	5440	6189	6790	161	7391	8350	4217
MISSOURI RIVER near Landusky (2)	APR-JUL	4922	5802	6400	164	6998	7878	3897
	APR-SEP	6091	6992	7600	166	8208	9389	4580
MISSOURI RIVER below Fort Peck (2)	APR-JUL	5122	6017	6625	165	7233	8128	4015
	APR-SEP	6067	7081	7650	166	8219	9514	4596
LAKE SAKAKAWEA Inflow (2)	APR-JUL	13370	15115	16300	165	17485	19230	9897
	APR-SEP	15544	17821	19000	168	20179	22579	11346

MISSOURI MAINSTEM RIVER BASIN Reservoir Storage (1000 AF) - End of February					MISSOURI MAINSTEM RIVER BASIN Watershed Snowpack Analysis - March 1, 1997			
Reservoir	Capacity	Usable *** Usable Storage ***			Watershed	Number of		
		This Year	Last Year	Avg		Data Sites	Last Yr	Average
CANYON FERRY LAKE	2043.0	1335.0	1563.0	1540.0	MISSOURI MAINSTEM	10	125	131
HELENA VALLEY	9.2	5.8	4.5	4.2	SMITH-JUDITH-MUSSELSHELL	12	144	133
LAKE HELENA	10.4	11.1	11.1	10.2	SUN-TETON-MARIAS	14	123	130
HAUSER & HELENA	61.9	63.2	63.2	61.0	MISSOURI abv FT PECK	35	130	131
HOLTER LAKE	81.9	81.1	81.3	68.2	MILK RIVER BASIN	12	198	106
FORT PECK LAKE (MAF)	18.9	15.3	15.9	14.7	MISSOURI MAINSTEM BASIN	46	134	128

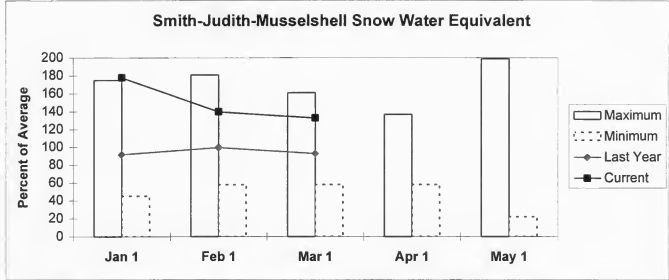
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

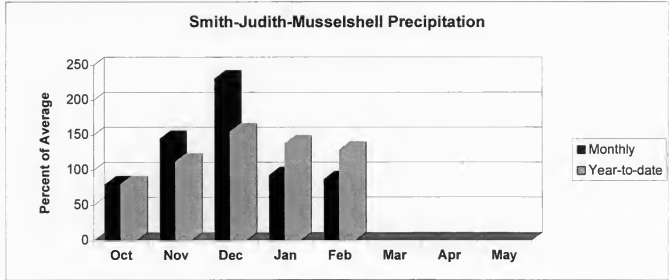
Smith-Judith-Musselshell River Basins

Snowpack conditions in the Smith-Judith-Musselshell River Basins were well above average and was the fifth highest of record for the period 1961-1996. Snow water content in the Smith River was 44 percent above average and 35 percent below last year; the Judith River was 19 percent above average and 41 percent above last year; and the Musselshell River was 39 percent of average and 52 percent above last year.



January maximum swe was established in 1978 and minimum swe in 1988; February maximum swe was in 1978 and minimum swe was in 1987; March maximum swe was in 1978 and minimum swe was in 1987; April maximum swe was in 1970 and minimum swe was in 1992; and May maximum swe was in 1970 and minimum swe was in 1987; and June maximum swe was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain and valley precipitation during February in the Smith River was 14 percent below average and 30 percent below last year; the Judith River was 13 percent below average and 4 percent above last year; and the Musselshell River was 10 percent above average and 1 percent below last year. Water year precipitation, beginning October 1, 1996, for the three basins combined was 29 percent above average and 14 percent above last year.



Reservoir storage, on the last day of February, was 4 percent above average and 27 percent below last year. Smith River storage was 7 percent below average and 33 percent below last year; Bair storage was 38 percent below average and 58 percent below last year; Martinsdale storage was 4 percent above average and 27 percent below last year; and Deadman's Basin was 9 percent above average and 24 percent below last year.

Streamflows, for the period April through July, are forecast to be 43 percent above average and 33 percent above last years forecasts. Snowmelt runoff flows could reach record highs, depending upon spring rain and temperatures. Those with properties in low-lying, floodplain areas should watch for sudden rise in streams or rivers, and contact the local disaster and emergency services coordinator or the National Weather Service to monitor high water conditions.

Surface Water Supply Index (SWSI) was +3.3 in the Smith River and +2.8 in the Musselshell River.

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
SHEEP CREEK nr White Sulphur Springs	APR-JUL	22	24	26	144	28	31	18.1
	APR-SEP	25	28	30	143	32	35	21
SMITH RIVER blw Eagle Creek	APR-JUL	119	138	150	146	162	181	103
	APR-SEP	141	164	180	145	196	219	124
NF MUSSELSHELL near Delpine	APR-JUL	4.64	6.05	7.00	146	7.95	9.36	4.80
	APR-SEP	5.47	7.03	8.10	145	9.17	10.73	5.60
SP MUSSELSHELL abv Martinsdale	APR-JUL	43	61	74	142	87	105	52
	APR-SEP	47	66	79	141	92	111	56

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Reservoir Storage (1000 AF) - End of February

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Watershed Snowpack Analysis - March 1, 1997

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
SMITH RIVER	10.6	6.2	9.2	6.7	SMITH	6	135	144
NEWLAN CREEK		NO REPORT			JUDITH	6	141	119
BAIR	7.0	2.6	6.2	4.2	MUSSELSHELL	6	152	139
MARTINSDALE	23.1	9.8	13.5	9.4	SMITH-JUDITH-MUSSELSHELL	12	144	133
DEADMAN'S BASIN	72.2	50.3	66.0	46.1				

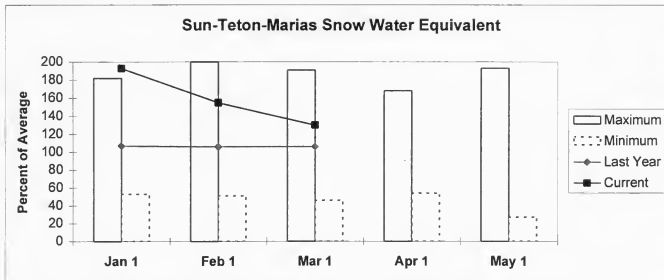
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

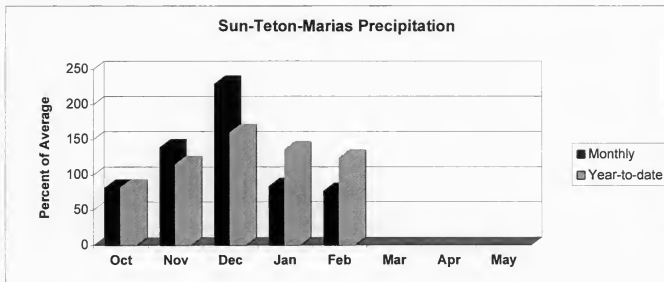
Sun-Teton-Marias River Basins

Snowpack conditions in the Sun-Teton-Marias River Basins were well above average and the fourth highest of record for the period 1961-1996. Snow water content in the Sun River was 30 percent above average and 23 percent above last year; the Teton River was 23 percent above average and 12 percent above last year; and the Marias River was 30 percent above average and 22 percent above last year.



January maximum swe was established in 1991 and minimum swe was in 1988; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1984; April maximum swe was in 1972 and minimum swe was in 1984; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain and valley precipitation during February in the Sun River was 39 percent below average and 65 percent below last year; the Teton River was 14 percent below average and 51 percent below last year; and the Marias River was 24 percent below average and 44 percent below last year. Water year precipitation, beginning October 1, 1996, for the three combined basins was 24 percent above average and 11 percent below last year.



Reservoir storage, on the last day of February, was 20 percent above average and 16 percent below last year. Gibson storage was 26 percent below average and 39 percent below last year; Pishkun storage was 102 percent above average and 73 percent above last year; Willow Creek storage was 70 percent below average and 76 percent below last year; Lower Two Medicine Lake storage was 42 percent below average and 62 percent below last year; Four Horns Lake storage was 2 percent below average and 68 percent above last year; Swift storage was 12 percent below average and 41 percent below last year; Lake Frances storage was 3 percent above average and 25 percent below last year; and Lake Elwell (Tiber) storage was 29 percent above average and 13 percent below last year.

Streamflows, for the period April through July, are forecast to be 37 percent above average and 22 percent above last years forecasts. Snowmelt runoff flows could reach record highs, depending upon spring rain and temperatures. Those with properties in low-lying, floodplain areas should watch for sudden rise in streams or rivers, and contact the local disaster and emergency services coordinator or the National Weather Service to monitor high water conditions.

Surface Water Supply Index (SWSI) was +2.6 in the Sun River; +2.1 in the Teton River; +2.7 in the Birch/Dupuyer Creeks; and +2.8 in the Marias River.

SUN-TETON-MARIAS RIVER BASINS
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
SUN RIVER at Gibson Dam (2)	APR-JUL	483	559	610	128	661	737	478
	APR-SEP	531	611	665	126	719	799	526
TWO MEDICINE RIVER near Browning (2)	APR-JUL	228	274	305	142	336	382	215
	APR-SEP	243	289	320	140	351	397	228
BADGER CREEK near Browning (2)	APR-JUL	102	122	135	130	148	168	104
	APR-SEP	125	146	160	133	174	195	120
SWIFT RESERVOIR Inflow near Dupuyer	APR-JUL	65	80	90	132	100	115	68
	APR-SEP	79	95	105	131	116	131	80
DUFUYER CREEK near Valier	APR-JUL	9.1	18.0	24	155	30	39	15.5
	APR-SEP	10.5	19.7	26	149	32	42	17.4
CUT BANK CREEK at Cut Bank	APR-JUL	105	120	130	149	140	155	87
	APR-SEP	114	130	140	146	151	166	96
MARIAS RIVER near Shelby (2)	APR-JUL	497	588	650	145	712	803	447
	APR-SEP	526	613	675	139	737	984	487

SUN-TETON-MARIAS RIVER BASINS
Reservoir Storage (1000 AF) - End of February

SUN-TETON-MARIAS RIVER BASINS
Watershed Snowpack Analysis - March 1, 1997

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
	This Year	Last Year	Avg				Last Yr	Average
GIBSON	99.1	35.0	57.8	47.5	SUN	7	123	130
FISHKUN	32.0	35.6	20.6	17.6	TETON	4	112	123
WILLOW CREEK	32.2	6.6	27.8	21.7	MARIAS	6	122	130
LOWER TWO MEDICINE LAKE	11.9	4.0	10.5	6.9	SUN-TETON-MARIAS	14	123	130
FOUR HORNS LAKE	19.2	12.3	7.3	12.5				
SWIFT	30.0	14.4	24.5	16.4				
LAKE FRANCES	112.0	71.6	95.4	69.7				
LAKE ELWELL (TIBER)	1347.0	748.5	865.2	580.2				

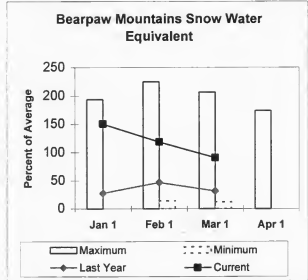
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

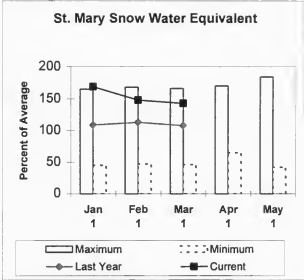
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

St. Mary and Milk River Basins

Snowpack conditions in the St. Mary were well above average and in the Milk were slightly above average. This was the fifth highest of record in the St. Mary for the period 1961-1996. Snow water content in the St. Mary was 8 percent above average and 26 percent above last year and the Milk was 40 percent below average and 768 percent above last year.

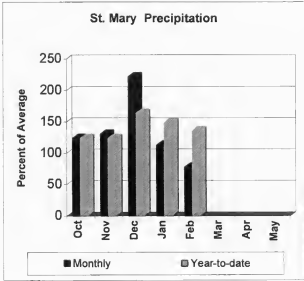
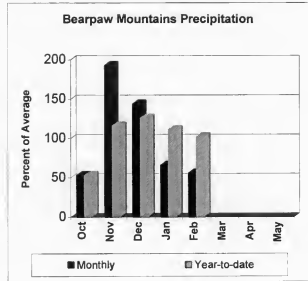


Bearpaw - January maximum swe was established in 1978 and minimum swe was in 1981; February maximum swe was 1978 and minimum swe was in 1973; March maximum swe was 1978 and minimum swe was 1981; April maximum swe was in 1975 and minimum swe was in 1983; May maximum swe was 1975 and the minimum has occurred in several years. Average is for the period 1961 through 1990.



St. Mary - January maximum swe was established in 1991 and minimum swe was in 1988; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1992; May maximum swe was in 1992 and minimum swe was in 1977; and June maximum swe was in 1991 and minimum swe was 1992. Average is for the period 1961 through 1990.

Mountain and valley precipitation during February in the St. Mary River was 22 percent below average and 44 percent below last year and in the Milk River was 44 percent below average and 27 percent below last year. Water year precipitation, beginning October 1, 1996, for the two basins was 24 percent above average and 16 percent below last year.



Reservoir storage, on the last day of February, was 16 percent above average and 20 percent below last year. Lake Sherburne storage was 20 percent above average and 16 percent below last year; Fresno storage was 32 percent above average and 31 percent below last year; Beaver Creek storage was 60 percent above average and 3 percent below last year; and Nelson storage was 12 percent below average and 13 percent above last year.

Streamflows, for the period April through July or March through July, in the St. Mary are forecast to be 25 percent above average and 16 percent above last years forecasts and in the Milk are forecast to be 36 percent above average and 34 percent above last year.

Surface Water Supply Index (SWSI) was +2.9 for the combined St. Mary and Milk River.

ST. MARY and MILK RIVER BASINS
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	{% AVG.}	30% (1000AF)	10% (1000AF)	

SWIFTCURRENT CREEK at Sherburne (2)	APR-JUL	115	124	130	122	136	145	107
	APR-SEP	139	148	155	124	162	171	125
ST. MARY RIVER near Babb	APR-JUL	448	479	500	127	521	552	395
	APR-SEP	529	565	590	127	615	651	463
ST. MARY RIVER at US/CAN Border (2)	APR-JUL	497	543	575	125	607	653	462
	APR-SEP	584	635	670	124	705	756	539
MILK RIVER at Western Crossing	MAR-JUL	44	53	60	136	67	76	44
	MAR-SEP	51	56	62	135	69	100	46
MILK RIVER at Eastern Crossing (2)	MAR-JUL	72	95	110	138	126	148	80
	MAR-SEP	100	105	120	136	135	173	88
BEAVER CREEK near Havre	MAR-JUL	4.4	9.2	12.5	121	15.8	21	10.3

ST. MARY and MILK RIVER BASINS Reservoir Storage (1000 AF) - End of February					ST. MARY and MILK RIVER BASINS Watershed Snowpack Analysis - March 1, 1997			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number Of Data Sites	This Year as % of Last Yr Average	
		This Year	Last Year	Avg			Last Yr	Average
LAKE SHERBURNE	64.3	31.5	37.7	26.3	ST. MARY	3	132	143
FRESNO	127.0	68.6	99.9	52.0	BEARPAW MOUNTAINS	6	353	91
BEAVER CREEK	3.5	3.2	3.3	2.0	CYPRESS HILLS, CANADA	6	145	123
NELSON	66.8	31.2	27.7	35.3	MILK RIVER BASIN	11	201	107
					ST. MARY & MILK BASINS	15	147	130

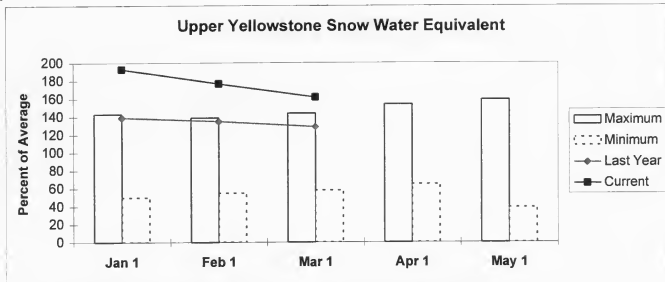
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The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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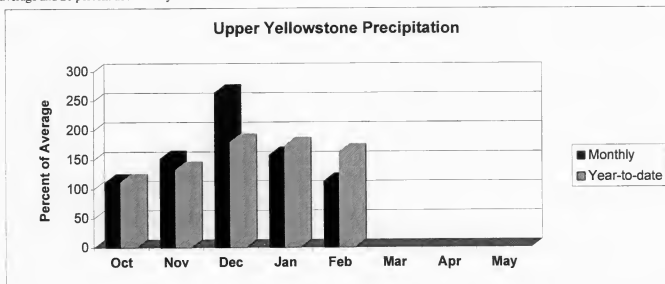
Upper Yellowstone River Basin

Snowpack conditions in the Upper Yellowstone River Basin were well above average and has set a new record, for the period 1961-1996, previously set in 1971 and was 44 percent above average. Snow water content was 62 percent above average and 25 percent above last year.



January maximum swe was established in 1976 and minimum swe was in 1988; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1971 and minimum swe was in 1977; April maximum swe was in 1971 and minimum swe was in 1981; May maximum swe was in 1971 and minimum swe was in 1987; and June maximum swe was 1982 and minimum swe was in 1987 and 1994. Average is for the period 1961 through 1990.

Mountain precipitation during February was 15 percent above average and 3 percent above last year. Valley precipitation during February was 27 percent below average and 48 percent below last year. Water year precipitation, beginning October 1, 1996, was 63 percent above average and 21 percent above last year.



Reservoir storage, on the last day of February, was 5 percent below average and 2 percent below last year. Mystic Lake storage was 36 percent below average and 95 percent above last year and Cooney storage was 7 percent above average and 12 percent below last year.

Streamflows, for the period April through July, are forecast to be 59 percent above average and 30 percent above last years forecasts. Snowmelt runoff flows could reach record highs, depending upon spring rain and temperatures. Those with properties in low-lying, floodplain areas should watch for sudden rise in streams or rivers, and contact the local disaster and emergency services coordinator or the National Weather Service to monitor high water conditions.

There are new streamflow records forecast for the period April through July at Yellowstone River at Corwin Springs, Yellowstone River near Livingston, Shields River near Livingston, and Yellowstone River at Billings.

Surface Water Supply Index (SWSI) was +4.0 in the Yellowstone River above Livingston; +4.0 in the Shields River; +4.0 in the Boulder River; +4.0 in the Stillwater River; +4.0 in the Rock/Red lodge Creeks; +4.0 in the Clarks Fork River; and +4.0 in the Yellowstone River above Bighorn River.

UPPER YELLOWSTONE RIVER BASIN
Streamflow Forecasts - March 1, 1997

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>				30-Yr Avg. (1000AF)		
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
YELLOWSTONE at Lake Outlet	APR-JUL	721	789	835	146	881	949	573
	APR-SEP	994	1087	1150	145	1213	1306	792
YELLOWSTONE RIVER at Corwin Springs	APR-JUL	2356	2466	2540	158	2614	2724	1609
	APR-SEP	2811	2941	3030	156	3119	3249	1937
YELLOWSTONE RIVER near Livingston	APR-JUL	2735	2875	2970	160	3065	3205	1855
	APR-SEP	3264	3428	3540	158	3652	3816	2241
SHIELDS RIVER near Livingston	APR-JUL	219	249	270	167	291	321	162
	APR-SEP	249	279	300	168	321	351	179
BOULDER RIVER at Big Timber	APR-JUL	432	473	500	149	527	568	335
	APR-SEP	480	522	550	151	578	620	364
WEST ROSEBUD CREEK near Roscoe (2)	APR-JUL	73	81	86	141	91	99	61
	APR-SEP	96	105	110	139	116	124	79
STILLWATER RIVER nr Absarokee (2)	APR-JUL	562	647	705	142	763	848	498
	APR-SEP	664	751	810	137	869	956	593
CLARKS FORK RIVER near Belfry	APR-JUL	682	741	780	147	819	878	532
	APR-SEP	779	839	880	149	921	981	590
RED LODGE CREEK blw Cooney Res (2)	APR-JUL	42	59	70	149	82	98	47
	APR-SEP	52	69	80	140	91	108	57
YELLOWSTONE RIVER at Billings (2)	APR-JUL	5215	5638	5925	166	6212	6635	3577
	APR-SEP	6239	6689	6995	166	7301	7751	4211

UPPER YELLOWSTONE RIVER BASIN
Reservoir Storage (1000 AF) - End of February

UPPER YELLOWSTONE RIVER BASIN
Watershed Snowpack Analysis - March 1, 1997

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
MYSTIC LAKE	21.0	3.7	1.9	5.8	abv LIVINGSTON	16	123	164
COONEY	27.4	16.5	18.7	15.4	SHIELDS	6	170	175
					BOULDER-STILLWATER	4	123	154
					CLARK'S FORK-ROCK CREEK	13	110	152
					UPPER YELLOWSTONE RIVER	35	125	162

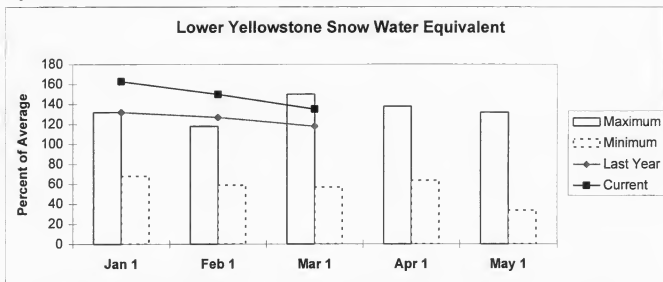
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The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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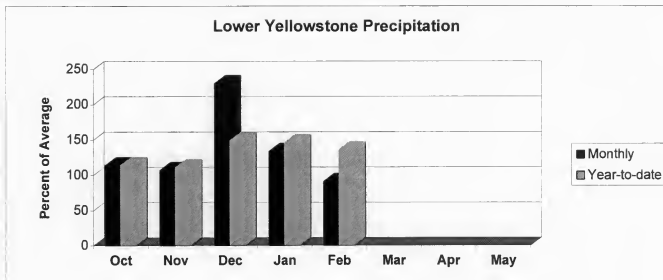
Lower Yellowstone River Basin

Snowpack conditions in the Lower Yellowstone River Basin were well above average and the second highest of record, for the period 1961-1996. Snow water content was 35 percent above average and 14 percent above last year.



January maximum swe was established in 1996 and minimum swe was in 1981; February maximum swe was in 1978 and minimum swe was in 1981; March maximum swe was in 1986 and minimum swe was in 1977; April maximum swe was in 1986 and minimum swe was in 1981; May maximum swe was in 1986 and minimum swe was in 1981; and June maximum swe was in 1995 and minimum swe was in 1994. Average is for the period 1961 through 1990.

Mountain and valley precipitation during February was 9 percent below average and 3 percent below last year. Water year precipitation, beginning October 1, 1996, was 36 percent above average and 11 percent above last year.



Reservoir storage, on the last day of February, was 7 percent below average and 8 percent below last year. Bighorn Lake storage was 6 percent below average and 7 percent below last year and Tongue River was 23 percent below average and 32 percent below last year.

Streamflows, for the period April through July, are forecast to be 60 percent above average and 29 percent above last years forecasts. Snowmelt runoff flows could reach record highs, depending upon spring rain and temperatures. Those with properties in low-lying, floodplain areas should watch for sudden rise in streams or rivers, and contact the local disaster and emergency services coordinator or the National Weather Service to monitor high water conditions.

There are new streamflow records forecast for the period April through July at Yellowstone River at Miles City and the Yellowstone River near Sidney.

Surface Water Supply Index (SWSI) was +3.6 in the Bighorn River below Bighorn Lake; +1.4 in the Little Bighorn River; +3.8 in the Yellowstone River below Bighorn River; +1.6 in the Tongue River; and +2.1 in the Powder River.

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LOWER YELLOWSTONE RIVER BASIN

Streamflow Forecasts - March 1, 1997

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)	30% (1000AF)	10% (1000AF)		
YELLOWSTONE RIVER at Billings (2)	APR-JUL	5215	5638	5925	166	6212	6635	3577
	APR-SEP	6239	6689	6995	166	7301	7751	4211
BIGHORN RIVER nr St. Xavier (2)	APR-JUL	2164	2483	2700	164	2917	3236	1645
	APR-SEP	2407	2756	2996	166	3236	3566	1810
LITTLE BIGHORN RIVER nr Hardin	APR-JUL	98	138	165	118	192	232	140
	APR-SEP	78	149	180	115	211	267	156
TONGUE RIVER stateline nr Decker (2)	APR-JUL	182	235	270	117	305	358	230
	APR-SEP	155	258	295	118	332	383	250
YELLOWSTONE RIVER at Miles City (2)	APR-JUL	7149	8073	8700	160	9327	10251	5431
	APR-SEP	8731	9491	10200	162	10909	11620	6281
POWDER RIVER at Moorhead	APR-JUL	158	204	235	111	266	312	211
	APR-SEP	100	229	260	112	291	394	232
POWDER RIVER near Locate	APR-JUL	203	255	290	115	325	377	252
	APR-SEP	116	275	320	116	365	490	275
YELLOWSTONE RIVER nr Sidney (2)	APR-JUL	8201	9272	10000	169	10728	11799	5925
	APR-SEP	9155	10105	11000	168	11895	12686	6539

LOWER YELLOWSTONE RIVER BASIN					LOWER YELLOWSTONE RIVER BASIN			
Reservoir Storage (1000 AF) - End of February					Watershed Snowpack Analysis - March 1, 1997			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of Last Yr Average	
		This Year	Last Year	Avg			Last Yr	Average
BIGHORN LAKE	1356.0	762.4	821.4	810.4	WIND RIVER (Wyoming)	20	112	143
TONGUE RIVER	68.0	23.1	34.2	30.1	SHOSHONE RIVER (Wyoming)	6	101	160
					BIGHORN RIVER (Wyoming)	20	114	140
					LITTLE BIGHORN (Wyoming)	3	120	112
					TONGUE RIVER (Wyoming)	9	112	114
					POWDER RIVER (Wyoming)	9	133	128
					LOWER YELLOWSTONE RIVER	48	114	135
					YELLOWSTONE BASIN	79	122	148

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* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural flow - actual flow may be affected by upstream water management.





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Montana
Basin Outlook Report
Natural Resources Conservation Service
Bozeman, MT

